

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Claims 37, 38, 43, and 55-57 have been amended herein and claim 58 has been newly added.

Listing of Claims:

1. (Previously presented) A system for managing welding consumable(s), comprising:
 - a welder comprising a consumable(s) monitor that transmits welding consumable(s) information that includes an indication of ownership of a welding consumable(s); and
 - a remote system that interfaces to the welder *via* a computer network, the remote system facilitates management of welding consumable(s) for the welder based at least in part upon information received from the consumable(s) monitor.
2. (Previously presented) The system of claim 1, the remote system facilitates ordering and/or purchasing of a consumable based at least in part upon information received from the consumable(s) monitor.
3. (Previously presented) The system of claim 2, the consumable is at least one of wire, gas, flux, contact tip and consumable electrode.
4. (Previously presented) The system of claim 3, the wire is used for at least one of gas metal arc welding, flux cored arc welding, metal cored arc welding, submerged arc welding, narrow groove welding, hot wire filled TIG welding, cold wire filled TIG welding, plasma arc welding, electron beam and laser welding, and hardface welding.
5. (Previously presented) The system of claim 3, the consumable electrode is used for at least one of arc gauging and manual shielded arc welding.

6. (Previously presented) The system of claim 2, the ordering and/or purchasing of the consumable is further based at least in part upon a customer ordering model stored on the remote system.

7. (Previously presented) The system of claim 2, the ordering and/or purchasing of the consumable is further based at least in part upon a vendor managed replenishment contract.

8. (Previously presented) The system of claim 7, ownership of the consumable(s) remains with a supplier, distributor and/or manufacturer until the consumable(s) has been used by a customer.

9. (Previously presented) The system of claim 1, the welder is leased to a customer and enforcement of the lease is performed at least in part based upon information received from the consumable(s) monitor.

10. (Previously presented) The system of claim 1, the remote system enforces at least one of welding equipment and welding software maintenance, a welding service or a welding upgrade contract, and terms that a maintenance fee is waived or reduced if order and usage requirement of welding consumable(s) is met.

11. (Previously presented) The system of claim 1, a customer is invoiced by the remote system for consumables based at least in part upon information received from the consumable(s) monitor.

12. (Previously presented) The system of claim 1, the network employs at least one of Ethernet, Wireless Ethernet, PPP (point-to-point protocol), point-to-multipoint short-range RF (Radio Frequency), WAP (Wireless Application Protocol), Bluetooth, IP, IPv6, TCP, User Datagram Protocol (UDP), PPTP (Point-to-Point Tunneling Protocol), L2TP (Layer Two Tunneling Protocol), IPsec (Internet Protocol Security) and SOCKS.

13. (Previously presented) The system of claim 1, information exchanged between the welder and the remote system includes at least one of HTML, SHTML, VB Script, JAVA, CGI Script, JAVA Script, dynamic HTML, ASP, ActiveX, XML, PDF, EDI and WML format.

14. (Previously presented) The system of claim 1, further comprising at least one of a LAN, a phone connection and a gateway to couple the welder and/or the remote system to the network.

15. (Previously presented) The system of claim 1, the welder interfaces to the remote system *via* at least one of a local computer network, an extranet and the Internet.

16. (Previously presented) The system of claim 1, the welder further comprises an arc/weld quality monitor providing information regarding weld quality to the remote system.

17. (Previously presented) The system of claim 16, a customer is invoiced by the remote system for consumable(s) based at least in part upon information regarding weld quality received from the arc/weld quality monitor.

18. (Previously presented) The system of claim 17, the remote system tracks patterns of usage of welding consumable(s) and/or welding consumable(s) inventory level(s).

19. (Previously presented) The system of claim 17, the remote system facilitates Just-In-Time (JIT) welding consumable(s) raw material inventory management to achieve low inventory and/or high service level objectives in production.

20. (Previously presented) The system of claim 1, the remote system, at least based in part upon information received from the consumable(s) monitor, performs enterprise resource planning, production capacity planning and/or welding consumable(s) forecast planning by a welding consumable(s) manufacturer, distributor and/or supplier.

21. (Previously presented) A system for managing welding consumable(s), comprising:

a welder comprising a consumable(s) monitor that sends welding consumable(s) information; and

a local system operatively coupled to the welder *via* a first computer network, the local system facilitates management of welding consumable(s) for the welder based at least in part upon information received from the consumable(s) monitor.

22. (Previously presented) The system of claim 21, further comprising a remote system operatively coupled to the local system *via* a second computer network, the remote system facilitates management of welding consumable(s) for the welder.

23. (Previously presented) The system of claim 22, the second network is at least one of a local computer network, an extranet and the Internet.

24. (Previously presented) The system of claim 22, the local system initiates orders from the remote system based at least in part upon information received from the consumable(s) monitor.

25. (Previously presented) The system of claim 24, the consumable is at least one of wire, gas, flux, contact tip and consumable electrode.

26. (Previously presented) The system of claim 25, the wire is used for at least one of gas metal arc welding, flux cored arc welding, metal cored arc welding, submerged arc welding, narrow groove welding, hot wire filled TIG welding, cold wire filled TIG welding, plasma arc welding, electron beam and laser welding, and hardface welding.

27. (Previously presented) The system of claim 25, the consumable electrode is used for at least one of arc gauging and manual shielded arc welding.

28. (Previously presented) The system of claim 21, the local system further comprises at least one of a production control system, a financial accounting system and a materials management system.

29. (Previously presented) The system of claim 28, the production control system, at least based in part upon information received from the consumable(s) monitor, performs production capacity planning and/or welding consumable(s) forecast planning.

30. (Previously presented) The system of claim 28, the financial accounting system, at least based in part upon information received from the consumable(s) monitor,

31. (Previously presented) The system of claim 28, the materials management system, at least based in part upon information received from the consumable(s) monitor, performs welding consumable(s) inventory management and/or welding consumable(s) procurement.

32. (Previously presented) The system of claim 21, the first network is at least one of a local computer network, an extranet and the Internet.

33. (Previously presented) The system of claim 21, the first network and/or the second network employs at least one of Ethernet, Wireless Ethernet, PPP (point-to-point protocol), point-to-multipoint short-range RF (Radio Frequency), WAP (Wireless Application Protocol), Bluetooth, IP, IPv6, TCP, User Datagram Protocol (UDP), PPTP (Point-to-Point Tunneling Protocol), L2TP (Layer Two Tunneling Protocol), IPsec (Internet Protocol Security) and SOCKS.

34. (Previously presented) The system of claim 21, information exchanged between the welder and the local system includes at least one of HTML, SHTML, VB Script, JAVA, CGI Script, JAVA Script, dynamic HTML, ASP, ActiveX, XML, PDF, EDI and WML format.

35. (Previously presented) The system of claim 22, the welder further comprises an arc/weld quality monitor providing information regarding weld quality to the local system and/or the remote system.

36. (Previously presented) The system of claim 35, a customer is invoiced by the remote system for consumable(s) based at least in part upon information regarding weld quality received from the arc/weld quality monitor.

37. (Currently amended) A system for managing welding consumable(s), comprising:
a memory;

means for interfacing a welder with a consumable(s) monitor that monitors consumable(s) usage of the welder[[,]] and ownership of a consumable;

means for interfacing the consumable(s) monitor with a remote system;

means for determining ordering levels for the consumable; and

means for utilizing usage and ownership of the consumable for ordering the consumable.

38. (Currently amended) A system for managing welding consumable(s), comprising:
a consumable monitor component that monitors consumable usage and/or consumable status of a welder, and that further monitors ownership of a consumable;
a memory coupled to the consumable monitor component;
a customer component that interfaces the consumable monitor to facilitate welding resource management based at least in part upon information regarding consumable usage and/or consumable status received from the consumable monitor component; and
a supplier component that receives information from the customer component to facilitate purchasing and/or ordering of welding consumable(s).
39. (Previously presented) The system of claim 38, the customer component further comprises at least one of a production control component, a financial accounting component and a materials management component.
40. (Previously presented) The system of claim 38, the consumable monitored by the consumable monitor component is at least one of wire, gas, flux, contact tip and consumable electrode.
41. (Previously presented) The system of claim 40, the wire is used for at least one of gas metal arc welding, flux cored arc welding, metal cored arc welding, submerged arc welding, narrow groove welding, hot wire filled TIG welding, cold wire filled TIG welding, plasma arc welding, electron beam and laser welding, and hardface welding.
42. (Previously presented) The system of claim 40, the consumable electrode is used for at least one of arc gauging and manual shielded arc welding.

43. (Currently amended) A system for managing welding consumable(s), comprising:
a memory that stores information that relates to consumable usage;
a consumable monitor component that monitors consumable usage and/or consumable status of a welder, and that further monitors ownership of a consumable;
an aggregation component for aggregating consumable usage that receives welding information from the consumable monitor;
an inventory replenishment component that receives information from the aggregation component;
a procurement management component that receives information from the aggregation component and to determine, at least based in part upon inventory data, forecast data and/or information associated with a vendor managed replenishment contract, whether to initiate reordering of the consumable;
a reorder proposal component for generating a reorder proposal once the procurement management component has initiated reordering of the consumable;
an authorization component that receives authorization for the reorder proposal received from the reorder proposal component;
a reorder transmittal component for transmitting a consumable reorder; and
a supplier component that receives the consumable reorder to facilitate purchasing and/or ordering of welding consumable(s).
44. (Previously presented) The system of claim 43, the consumable reorder is transmitted by the reorder transmittal component *via* EDI or XML.

45. (Previously presented) A method for managing welding consumable(s), comprising:
- receiving information from a consumable(s) monitor *via* a computer network regarding consumable usage of a welder and ownership of consumables consumed by the welder;
 - determining whether supply of a welding consumable has fallen below ordering threshold; and
 - ordering the welding consumable based at least in part upon the information received regarding the consumable usage and ownership.
46. (Previously presented) The method of claim 45, further comprising aggregating information regarding the consumable usage.
47. (Previously presented) The method of claim 45, further comprising aggregating information regarding the consumable ordering.
48. (Previously presented) A method for managing welding consumable(s), comprising:
- receiving information from a consumable(s) monitor associated with a welder *via* a computer network regarding welding consumable usage and welding consumable ownership; and
 - invoicing a customer for the welding consumable based at least in part upon the information received regarding the consumable usage.
49. (Previously presented) A method for managing welding consumable(s), comprising:
- receiving information from a monitor that evaluates consumable(s) related to a welder *via* a computer network regarding consumable usage;
 - receiving information regarding weld quality; and
 - invoicing a customer for the consumable based at least in part upon the information received regarding the consumable usage and the weld quality.

50. (Previously presented) A method for managing welding consumable(s), comprising:
- receiving information from a consumable(s) monitor associated with a welder *via* a computer network regarding usage and ownership of a welding consumable;
 - obtaining information regarding inventory level of the welding consumable;
 - obtaining information regarding a welding vendor managed replenishment contract;
 - determining whether the inventory level of the welding consumable has fallen below a threshold ordering level; and
 - transmitting a reorder of the welding consumable.
51. (Previously presented) The method of claim 50, further comprising at least one of:
- aggregating information regarding consumable(s) usage; and
 - obtaining authorization for the reorder of the consumable.
52. (Previously presented) The method of claim 50, the act of determining whether the inventory level has fallen below the threshold ordering level is based at least in part upon at least one of a information provided in the vendor managed replenishment contract, supplier's lead time for the consumable, consumable forecast usage rate, consumable availability and consumable pricing data.
53. (Previously presented) The method of claim 50, the threshold ordering level is updated continuously and in real-time from aggregated welding consumable(s) data, supplier's lead time for the consumable, availability of the consumable and /or consumable pricing data.

54. (Previously presented) A system for communicating a signal between a welder and a remote system, comprising:

a welder comprising a consumable(s) monitor that communicates information regarding welding consumable(s) usage and ownership *via* a signal; and

a remote system that facilitates management of welding consumable(s) for the welder based at least in part upon information received from the consumable(s) monitor *via* the signal.

55. (Currently amended) A computer-readable medium having computer-executable instructions that ~~executes~~ are executed to yield the method of claim 45.

56. (Currently amended) A computer-readable medium having computer-executable instructions that ~~executes~~ are executed to yield the method of claim 48.

57. (Currently amended) A computer-readable medium having computer-executable instructions that ~~executes~~ are executed to yield the method of claim 50.

58. (New) The system of claim 1, the remote system charges an operator of the welder for welding consumable(s) as they are used by the welder.